

# **Physician Empanelment and Patient Re-Visit Intervals in the Era of Healthcare Reform: An Analysis of Appropriate Follow-up Times for Patients with Chronic Conditions in a Federally Qualified Health Center (FQHC)**

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## **Abstract**

Healthcare reform has expanded the access of preventative care to patients who historically have never had access to healthcare. For decades, patients with no healthcare insurance had to resort to emergency care only when found in severely advanced conditions or in life-threatening situations.

In this era of healthcare reform, the focus of community health centers will proceed in a direction of managing populations as the demand for access increases, as the patient population with access to health insurance increases. Literature demonstrates that appropriately managing follow up visits, can curtail costs to patients and organizations, improve access, without compromising quality of care to patients.<sup>1</sup>

This analysis provides primary care facilities and its providers an insight to clinicians' perspectives on what appropriate intervals should be in practice through the administration of a provider survey (n=59) along with literature recommendations, utilizing PubMed as the search engine, of appropriate time intervals for patients with chronic, stable, uncomplicated conditions of hypertension, diabetes or hypercholesterolemia. The setting for this survey is in a Federally Qualified Community Health Center (FQHC) in Los Angeles, CA.

Literature review demonstrated an appropriate follow up interval for chronic, stable, uncomplicated hypertension to be 6mo>1yr, however, there was no literature recommendations

for follow-up intervals for patients with diabetes or hyperlipidemia. Even though there were slight discrepancies in views amongst providers, there was most concordance over follow-up intervals being at least 6 months time. Although there currently are no guidelines for follow-up intervals for patients with diabetes or hyperlipidemia, providing guidelines to providers on appropriate follow-up intervals for patients with these chronic, unstable conditions would be beneficial to patients, to their practice, and to medicine. Even though there are guidelines for hypertension there are organization-wide differences in views amongst providers in appropriate follow-up interval timing. In this case setting an organization-wide guideline would help bring providers in the organization on the same page as community health centers move towards population management.

**Keywords:** Healthcare reform, re-visit times, follow-up intervals, empanelment, population management, Diabetes, Hypertension, Hypercholesterolemia, community health center, utilization, access

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## **Introduction**

Studying the dynamics of access and utilization in primary care and community clinics has been a passion and interest of mine since my early undergraduate years. More so, I continue to be interested in improving access to healthcare for the most vulnerable patients of our nation. I strongly believe that every individual in this nation has a right to access to the highest quality care. I believe healthcare is one of the pillars necessary to allow our communities to thrive. Based on my interest, I wanted to pursue a project that would encompass the scope of access and utilization in the community health center setting.

Learning how the Affordable Care Act (ACA) will impact healthcare on both the physician side and the patient side continues to be an interest. A physician empanelment and patient re-visit intervals project encompasses both aspects of medicine that I am passionate about - delivering high quality medical care and providing access to patients for care.

Not only could I continue to learn about the topics that interest me and ignite my thought process but I could also apply what I had learned throughout my first year of my medical education and experiences. In community clinics and federally qualified health centers there is a fine balance between the providers, patients, and organization administration especially in ensuring that the main goal is providing high quality, accessible and sound medicine. This project would allow me to continue to learn about those dynamics.

## **Background**

AltaMed Health Services Corporation (AltaMed) is a federally qualified health center (FQHC) in the heart of Los Angeles County. AltaMed has various satellite clinics that provide primary care in the greater East Los Angeles and Orange County areas of Southern California. AltaMed's mission and drive is to serve all individuals with the highest quality healthcare

services regardless of their ability to pay, background or income bracket. They are located in some of the most undeserved and vulnerable cities of Los Angeles and Orange County. AltaMed served over 157,700 patients in the last year alone. In an era of healthcare reform, the number of individuals who historically have not had access to care now have the access to preventative healthcare services as the access to healthcare insurance has increased. AltaMed's patient population, who has access to preventative healthcare services and additionally has access to now seek services from the healthcare facility of their choice, has increased with the Affordable Care Act in the same pattern it will increase for community health centers across the nation. With the increased patient demand however, the concern for increased access along with increased pressure to reduce healthcare costs still maintains.

As AltaMed, and community health centers of its like, move in a direction of population management in this new era of healthcare reform, one question is where will the time to see new or more patients would be allocated from for providers to serve an increased population size in a setting where they are already at capacity? Upon literature investigation of the dynamics of primary health facilities one study concludes that a substantial portion of outpatient office visits are follow-up visits... additionally, data supports that the frequency of follow-up intervals does not necessarily impact patient outcomes.<sup>1</sup> "Managing follow-up visits and intervals has potential to reduce costs per person and improve access without compromising or restricting care".<sup>1</sup> Furthermore data indicate that "patient health status does not dominate physician follow-up visits, rather physicians appear to have characteristic scheduling tendencies that greatly influence the length of the re-visit intervals".<sup>2</sup> Setting appropriate re-visit intervals for stable patients with uncomplicated conditions is important in the community health center setting as it will allow

providers and community healthcare centers across the nation to provide care and access to the increased patient population without compromising quality and outcomes.

Patients with chronic conditions necessitate seeing their providers for follow-up visits however, anecdotally it appeared in-clinic that at AltaMed patients were perhaps being seen more often than was needed. High utilization rates contributes to lack of access of scheduling for other patients on provider panels, increased cost for patients, and an increase in no-show rates for patients with unneeded short follow-up intervals. Having patients return during short follow-up intervals, may imply an unnecessary cost and time burden for patients as they need to take time off of work, find care-givers if they are guardians, and search for modes of transportation. For many working class families this may be a burden that may contribute to no-show rates for patients. Community health centers serve to provide healthcare to their patients in a manner where their patients receive everything they need, neither any more or any less than what they need, in order to be able to serve their whole patient population with the highest quality care. Data from the 2009 Medical Expenditure Panel Survey found that young adults ages 18–26 had the lowest health utilization rate of any age group.<sup>3</sup> A study conducted in 2010 determined that “postponing or prolonging the return-visit interval does not compromise quality, [and] doing so can greatly increase the capacity to see more patients.”<sup>4</sup> Additionally, other services in the Patient-Centered Medical Home (PCMH) model are an asset in providing care to patients for services that do not require Provider or Physician training.<sup>4</sup> Such resources may include but are not limited to, nutrition classes, exercise classes, or diabetic support groups.

AltaMed as a Federally Qualified Health Center, is moving in a direction of population management as many other community health centers of its kind may be doing. Anecdotally clinic directors noted that there were high utilization rates for stable uncomplicated patients that

may not necessarily need to return for follow-ups as often. It is important to consider that patients need to be seen as often as they may need to, not any more or any less. It was important for me to get the organizations' providers insight on appropriate follow intervals for their patients in an effort to see if as a collective there would be a way for practicing providers to be in agreement as to appropriate follow-up intervals that would be beneficial to patients, to their practice, and to medicine. I sought to collect data on AltaMed's current utilization rate for patients diagnosed with a single diagnosis of either hypertension, diabetes, or hyperlipidemia, conduct a literature search for guidelines on appropriate follow-up intervals for patients with these conditions and compare it with AltaMed's current utilization rates. It is important to note that for patients with these conditions some may overlap, even all. However, for this research all three would be looked at as patients whom only had a single diagnosis of any of these three conditions.

## **Methodology**

### **Provider Survey**

I created a provider survey to ask providers their thoughts on what they believed would be appropriate follow up intervals for patients with chronic, stable, uncomplicated hypertension, diabetes or hyperlipidemia (see Appendix 1). The survey was given to providers via e-mail through a survey link. The providers were notified that the survey would be open for one week. During that time frame, one reminder e-mail was sent to providers notifying them when the survey would close in one day. The survey consisted of 5 questions regarding their thoughts on re-visit intervals, their level of worry if re-visit interval time was extended by one month and their thoughts on whether a "check-in" phone call would make them feel more comfortable

extending their re-visit time. The survey was anonymous and was sent out to all providers (127) and 59 providers answered the survey.

### **Literature Search**

A literature review of re-visit intervals for patients with diagnosed hypertension, diabetes, or hyperlipidemia was conducted over a period of 4 weeks. The search was conducted for each condition as a single complaint. The search engine utilized was PubMed with the following keywords entered in the search engine in various orders and combinations; keywords: re-visit intervals, follow-up intervals, longitudinal care, physician panels, diabetes, hypertension, diabetes RVI (re-visit intervals). Only literature from the past 10 years was reviewed.

### **Data Collection**

The objective of the data collection of AltaMed's average utilization for patients with Diabetes, Hypertension, and hyperlipidemia was to gain an understanding of the annual regularity of patient visits for the indicated chronic conditions. A data request was submitted to AltaMed's Medical Informatics Department. The data was acquired over the period of a week. The work order request for the data contained the following criteria:

- 1) Average visit utilization (visits/unique patients) for the following patient Dx:
  - a. Diabetic
  - b. Hypertension
  - c. Hyperlipidemia
- 2) Visits locations include LA & OC Clinics
  - a. Exclude PACE (Program of All-Inclusive Care for the Elderly)
  - b. Visits must be marked as kept, not rescheduled, canceled, or deleted

- c. Patients with one of the chronic conditions above must have had a visit during the time frame specified below.
  - 3) Last 12 months of visits in NextGen EMR (July 2013 through June 2014)
  - 4) Encounter must be with a medical provider (non-ancillary)
    - a. Provider name must not contain the word “ancillary”, “nurse”, “tech”, “education”. This will exclude known ancillary (non-billable) providers to ensure visits are with a medical provider only (i.e., MD, DO, NP, PAC, etc.)

## **Results**

### **Provider Survey**

59 Surveys were collected over a period of one week. All the surveys completed had all 5 questions answered. 52.54% of providers believed that 6 months is the appropriate follow up interval for a patient with stable hypertension (<140/90), 23.73% believed 3 months is appropriate, 8.47% believed it to be one year, 8.47% believed it to be 4 months, 5.08% believed it to be 2 months, and 1.69% believed it to be 9 months (see Appendix 2). 57.63% of providers believed that 6 months is the appropriate follow up interval for a patient with stable hyperlipidemia (e.g. on a statin per new lipid guidelines). 28.81% believed 1 year is appropriate, 8.47% believed it to be 4 months, and 5.08% believed it to be 3 months (see Appendix 2). 45.76% of providers believed that 6 months is the appropriate follow up interval for a patient with stable diabetes (e.g. HA1C<7). 39.98% believed 3 months is appropriate, 1.69% believed 1 month to be appropriate (see Appendix 2). When asked, “On a scale from 1-5 (1=very worried, 5=not worried), how worried would you be about increasing the follow up interval for your patients with stable diabetes by 1 month? (e.g. if you typically see such patients every 3 months,

how worried would you be about increasing to every 4 months)”, 35.59% said they would not be worried (5), 33.99% answered a level of worry of 4, 20.34% answered a level of worry of 3, 3.39% answered a level of worry of 2 and 6.78% responded they would be very worried (1) (see Appendix 2). When asked, “If your patients with stable diabetes received a "check in" phone call/message/portal communication, would this help you feel more comfortable extending the follow up interval? (1=very helpful, 5=not helpful)” 30.51% of providers believed it would be very helpful (1), 28.81% believed it would be helpful on a level of 2, 16.95% believed it would be helpful on a level of 3, 8.47% believed it would be helpful on a level of 4, and 15.25% believed it would not be helpful (see Appendix 2).

### **Literature Search**

The literature search yielded results for appropriate follow up intervals for chronic, stable, uncomplicated diabetes. The appropriate time interval indicated is greater than 6 months however less than 1 year.<sup>1</sup> The literature search did not yield any results providing guidelines for appropriate follow intervals for chronic, stable, uncomplicated diabetes or hyperlipidemia.

### **Data Collection**

The data request returned the following utilization numbers: The total patient count of patients with the diagnosis code for hypertension is 21, 113 patients, the total number of visits during July 2013 and June 2014 is 120, 054 visits to give an average annual utilization of 5.69 visits per year. The total patient count with the diagnosis for diabetes is 14, 210 patients, the total visits during July 2013 and June 2014 is 89, 676 to give an average annual utilization of 6.32 visits per year. The total patient count with the diagnosis for hyperlipidemia is 27,359 patients, the total visits during July 2013 and June 2014 is 154, 424 to give an average annual utilization of 5.64 visits per year (see Appendix 3).

## Discussion

Even though there were slight discrepancies in views amongst providers, there was most concordance over follow-up intervals being at least 6 months time. Literature demonstrates that an appropriate follow-up interval for patients with chronic, stable, uncomplicated hypertension is 6mo>1yr. Most providers believed that 6 months times is appropriate with the second highest thought being 3 months. In this case, the AltaMed data also supports that patients with a diagnosis of hypertension are seeing their provider at 5 visits per year rather than the recommended >6mo (or 1 time per year). Most providers said they would not be worried if they extended follow-up intervals by 1 month. For example if they see their patients every 6 months, they would be fine with seeing them every 7 months instead. Studies show that providers set their re-visit intervals based on their personal preference. By starting with extending the follow-up intervals by one month the organization can slowly begin to move in a direction that establishes an organization-wide guideline for follow-up intervals.

A question that was raised during this study was that there may be overlap between patient diagnoses. For example, someone with diabetes might also have hypertension, or hyperlipidemia, or all three conditions. Many patients might not have just one of the indicated conditions, when they have one they also have another. This serves as an area for further study. It is important to establish guidelines for stable, uncomplicated conditions first and foremost and then progress towards patients with multiple diagnoses. Another question raised was that certain provider might have different demographics in their panel. In the data search patients were not looked at based on providers, the data request was for number of visits per unique patients.

Literature review did not yield appropriate guidelines for patients with chronic, stable, uncomplicated diabetes or hyperlipidemia. This is an area of study that could be very valuable to

primary and to medicine. This would be very important for community health centers especially as they move in a direction of population management. In a study that discusses the 10 building blocks of high performing primary care<sup>5</sup>, one of the building block is empanelment which then allows the organization to build up to population management and on top of that prompt access to care, in which case having appropriate follow-up intervals would be beneficial to patients, providers and the practice (see Appendix 4).

Areas of further study that would be beneficial to this research are establishing guidelines for controlled diabetes and hyperlipidemia. It would also be beneficial to survey patients to get their thoughts on their follow-up intervals. It would be important to know if a patient would prefer to come in every 3 months or every 6 months, knowing that their outcomes would still be the same. Would they prefer to come in less frequently if their outcomes would be the same as if there were to come in more often? This would be important to find out as going to the clinic entails cost and time for patients as well. Another important are of study would be to study whether patient “check-in” calls impact quality of care.

### **Recommendations**

One of my recommendations is to identify providers of highest utilizing patients and identify variables amongst providers. Some providers may have more frequent follow-up visits amongst their patients as a whole and it would be important to evaluate that to best support those providers. Some providers may be recently out of training or may be less comfortable with longer intervals between follow-up visits for a particular reason. It would be important to identify them to bring them together with their colleagues to the same page. One study concluded that, “Tendencies to provide very high numbers of re-visits compared to expected levels provide clues for targeting education regarding practice guidelines and existing practice norms”.<sup>6</sup> It

would be important to help educate or evaluate provider's re-visit intervals compared to their peers to identify opportunities for education or support to providers.

I would highly recommend AltaMed and community health centers of its like to provide ongoing yearly provider guidelines/education seminars to maintain organization-wide baseline in care. Moving forward in a very dynamic healthcare system this will be very important to ensure that all providers are knowledgeable about general practice guidelines that will positively contribute to the organization's delivery of care. My final recommendation is for AltaMed to encourage provider's who currently see patients with chronic, stable, uncomplicated hypertension, in follow-up intervals between 1months-6 months, to extend their interval by one month and monitor the impact to their patient, providers, and appointment flow. As a study conducted by Schectman, et al., concluded that prolonging the return visit interval demonstrated no deterioration in diabetes, lipid disorders, or hypertension outcomes and prevention measures showed substantial improvement.<sup>7</sup>

### **Conclusion**

A considerable amount of office visits in primary care are follow-up visits. Setting appropriate re-visit intervals for patients has the opportunity to curtail costs to organizations and patients and improve patient satisfaction without compromising quality of care. As community health centers move in a direction of population management it will be important to establish appropriate physician panels along with maintaining provider access to patients with low wait times to receive an appointment. Follow-up intervals are a substantial portion of visits that if well managed by organizations and providers can be a tremendous source for physician available time to allocate that time towards other resources, acute emergency patients, or severely ill patients. Providers at AltaMed overall are in concordance as to what the follow up for chronic conditions

should be. It will be important to create organization-wide education to educate all providers as to appropriate guidelines for diabetes and hyperlipidemia and ensure that all providers are at least close to the baseline for target hypertension follow-up time (6mo>1yr). Overall, addressing appropriate follow-up intervals in primary is important to ensure that patients, providers, and organizations maintain an efficacious, high-quality, accessible healthcare system.

## References

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## Appendix 1: Provider Survey

1) What do you believe is the appropriate follow up interval for a patient with stable diabetes (HA1C <7)

- 1Month  2Months  3 Months  4 Months  5 Months  6 Months  
 7 Months  8 Months  9 Months  10 Months  11 Months  1year

2) What do you believe is the appropriate follow up interval for a patient with stable hypertension (<140/90)?

- 1Month  2Months  3 Months  4 Months  5 Months  6 Months  
 7 Months  8 Months  9 Months  10 Months  11 Months  1year

3) What do you believe is the appropriate follow up interval for patients with stable hyperlipidemia (e.g. on a statin per new lipid guidelines)?

- 1Month  2Months  3 Months  4 Months  5 Months  6 Months  
 7 Months  8 Months  9 Months  10 Months  11 Months  1year

4) On a scale from 1-5 (1=very worried, 5=not worried), how worried would you be about increasing the follow up interval for your patients with stable diabetes by 1 month? (e.g. if you typically see such patients every 3 months, how worried would you be about increasing to every 4 months)

- 1  2  3  4  5

5) If your patients with stable diabetes received a "check in" phone call/message/portal communication, would this help you feel more comfortable extending the follow up interval? (1=very helpful, 5=not helpful)

- 1  2  3  4  5

## Appendix 2: Provider Survey Results

What do you believe is the appropriate follow up interval for a patient with stable hypertension (<140/90)?

| Answer Choices | Responses |
|----------------|-----------|
| 1 Month        | 0.00% 0   |
| 2 Months       | 5.08% 3   |
| 3 Months       | 23.73% 14 |
| 4 Months       | 8.47% 5   |
| 5 Months       | 0.00% 0   |
| 6 Months       | 52.54% 31 |
| 7 Months       | 0.00% 0   |
| 8 Months       | 0.00% 0   |
| 9 Months       | 1.69% 1   |
| 10 Months      | 0.00% 0   |
| 11 Months      | 0.00% 0   |
| 1 Year         | 8.47% 5   |
| <b>Total</b>   | <b>59</b> |

What do you believe is the appropriate follow up interval for patients with stable hyperlipidemia (e.g. on a statin per new lipid guidelines)?

| Answer Choices | Responses |
|----------------|-----------|
| 1 Month        | 0.00% 0   |
| 2 Months       | 0.00% 0   |
| 3 Months       | 5.08% 3   |
| 4 Months       | 8.47% 5   |
| 5 Months       | 0.00% 0   |
| 6 Months       | 57.63% 34 |
| 7 Months       | 0.00% 0   |
| 8 Months       | 0.00% 0   |
| 9 Months       | 0.00% 0   |
| 10 Months      | 0.00% 0   |
| 11 Months      | 0.00% 0   |
| 1 Year         | 28.81% 17 |
| <b>Total</b>   | <b>59</b> |

What do you believe is the appropriate follow-up interval for a patient with stable diabetes (e.g. HA1C < 7)?

| Answer Choices | Responses |
|----------------|-----------|
| 1 Month        | 0.00% 0   |
| 2 Months       | 1.69% 1   |
| 3 Months       | 38.98% 23 |
| 4 Months       | 11.86% 7  |
| 5 Months       | 0.00% 0   |
| 6 Months       | 45.76% 27 |
| 7 Months       | 0.00% 0   |
| 8 Months       | 0.00% 0   |
| 9 Months       | 0.00% 0   |
| 10 Months      | 0.00% 0   |
| 11 Months      | 0.00% 0   |
| 1 Year         | 1.69% 1   |
| <b>Total</b>   | <b>59</b> |

On a scale from 1-5 (1=very worried, 5=not worried), how worried would you be about increasing the follow up interval for your patients with stable diabetes by 1 month? (e.g. if you typically see such patients every 3 months, how worried would you be about increasing to every 4 months)

| Answer Choices | Responses |
|----------------|-----------|
| 1              | 6.78% 4   |
| 2              | 3.39% 2   |
| 3              | 20.34% 12 |
| 4              | 33.90% 20 |
| 5              | 35.59% 21 |
| <b>Total</b>   | <b>59</b> |

If your patients with stable diabetes received a "check in" phone call/message/portal communication, would this help you feel more comfortable extending the follow-up interval? (1=very helpful, 5=not helpful)

| Answer Choices | Responses |    |
|----------------|-----------|----|
| ▼ 1            | 30.51%    | 18 |
| ▼ 2            | 28.81%    | 17 |
| ▼ 3            | 16.95%    | 10 |
| ▼ 4            | 8.47%     | 5  |
| ▼ 5            | 15.25%    | 9  |
| Total          |           | 59 |

**Appendix 3: Average Utilization for Patients with Diabetes, Hypertension, and Hyperlipidemia**

## Enterprise Analytics Department

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**Report Name: Average utilization for patients with Diabetes, Hypertension and Hyperlipidemia**

| Condition        | Pt_Count | Visits  | Average Annual Utilization |
|------------------|----------|---------|----------------------------|
| Diabetes         | 14,210   | 89,767  | 6.32                       |
| Hypertension     | 21,113   | 120,054 | 5.69                       |
| Hyperlipidemia   | 27,359   | 154,424 | 5.64                       |
| All 3 conditions | 7,006    | 50,794  | 7.25                       |

## Appendix 4: The 10 Building Blocks of High Performing Primary Care

### The 10 Building Blocks of High-Performing Primary Care

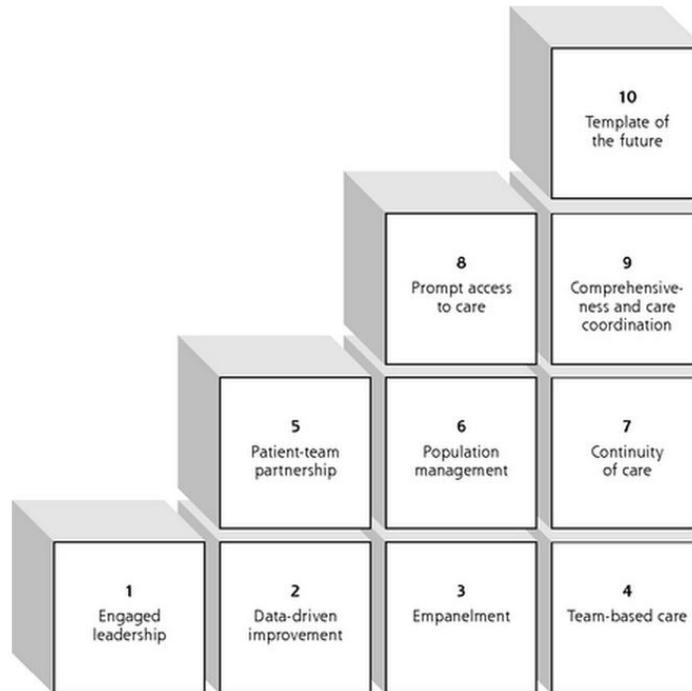


Image Source: Bodenheimer T, Ghorob A, Willard-grace R, Grumbach K. The 10 building blocks of high-performing primary care. *Ann Fam Med*. 2014;12(2):166-71.